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U. S. DEPARTMENT OF AGRICULTURE

MARKETING MARGINS FOR DAIRY PRODUCTS

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MARKETING MARGINS FOR DAIRY PRODUCTS 1/

Marketing margins for all major dairy products increased during 1958. Retail prices, except for butter, increased about as much as marketing margins. Farm values averaged about the same as in 1957 and the farmer's share of the retail price dropped slightly. Operating costs for fluid milk distributors increased about 3 percent, about the same as in each year since 1952. For fluid milk operations since 1952, sales values per unit of product have changed little and increases in operating costs have been absorbed by decreases in prices paid to farmers and in net profits of processing and distributing firms.

Fluid Milk

Retail prices and marketing margins for fluid milk increased in 1958 but farm values declined slightly from a year earlier (table 8). 2/ The annual average retail price paid by urban consumers in the United States was a record 24.5 cents per quart. However, the increase of 0.3 cent in 1958 was less than the increases in each of the 2 previous years. After rising for 2 years, the farm value declined to 10.7 cents in 1958, 1.2 cents below the high reached in 1952 but 0.5 cent above the post-Korean war low of 10.2 cents in 1955. Because the retail price increased and the farm value declined, the farmer's share of the retail price declined from 45 percent in 1957 to 44 percent in 1958.

With a retail price increase of 0.3 cent and a farm value decrease of 0.2 cent, the annual average marketing margin increased 0.5 cent -- from 13.3 cents in 1957 to 13.8 cents in 1958. It increased 0.6 cent from 1956 to 1957 and it increased each year during 1950-58; the average rate of increase was about 5 percent per year.

Costs and Margins of Fluid Milk Distributors 3/

Fluid milk distributors experienced a definite cost-price squeeze from 1952 through 1958. The unit value of products sold remained fairly steady during this period (table 9). Costs of raw materials purchased for processing and sale decreased 9 percent but operating costs increased 20 percent. Net profits before income taxes declined 36 percent (table 9). These conclusions are based on a study of the operations of a group of representative fluid milk processing and distributing firms.

1/ Prepared by D.D. MacPherson, Agricultural Economist, and Helen V. Smith, Statistical Assistant, Market. Res. Div., Agr. Market. Serv.

2/ The terms marketing margin and farm-retail spread are used interchangeably to define the charges made by marketing agencies for assembling, processing, transporting, and distributing dairy products. These charges, in total, are the differences between the retail price and the farm value or payment farmers received for the equivalent quantity of the raw product.

3/ The following three sections are based on data obtained, from 1952 to date, for a typical group of fluid milk distributors.

Table 8.- Fluid milk: Average annual retail price per quart in urban areas, farm value, marketing margin, and farmer's share of retail price, United States, average 1947-49, and annual 1950-58 1/

Year	Retail price	Farm value	Marketing margin	Farmer's share
	Cents	Cents	Cents	Percent
1947-49	20.1	10.6	9.5	53
1950	19.8	9.9	9.9	50
1951	22.1	11.2	10.9	51
1952	23.2	11.9	11.3	51
1953	22.8	11.1	11.7	49
1954	22.4	10.4	12.0	46
1955	22.5	10.2	12.3	45
1956	23.3	10.6	12.7	45
1957	24.2	10.9	13.3	45
1958	24.5	10.7	13.8	44

1/ Estimate of retail price is basically a single-quart price computed from data published by the Bur. of Labor Statistics. Farm value is computed from data published by the Agr. Market. Serv.

Average value per 100 pounds of product sold by these distributors was 1 percent lower in 1958 than in 1952. But retail prices of fluid milk rose by 6 percent from 1952 to 1958 (table 8). This divergence resulted from two important shifts in marketing practices affecting unit sales values of dairy products: First, an increasing proportion of milk was sold in larger sized containers; second, a larger proportion of sales were to wholesale outlets. For example, during 1955-58, sales in gallons and 1/2 gallons increased from 29 percent to more than 36 percent of the total volume of products sold; during this same period, sales to wholesale outlets increased from 63 percent to 65 percent of the total volume. Sales in larger containers and to wholesale outlets are at lower prices for equivalent quantities than sales in small containers and to retail outlets.

The decline in costs of raw materials resulted from the drop in cost of raw milk and cream purchased from farmers. This cost fell 13 percent from 1952 to 1954 and then recovered slightly. In 1958, the cost of raw milk and cream was 11 percent below 1952. Costs of other raw materials increased 6 percent during 1952-58.

Operating costs rose 20 percent from 1952 to 1958. These costs would have risen considerably more except for changes in processing and distributing practices. In most instances, increases in rates were greater than increases in costs per unit of product: It is estimated that average hourly rates of labor increased more than 30 percent during 1952-58 but unit labor costs increased only 21 percent. Prices of container board increased by 8 percent and glass containers by 34 percent but container costs per unit of product sold increased only 17 percent, mainly because of the shift to larger sized containers and from glass to paper containers.

Table 9.- Trends in sales value, raw material costs, operating expenses, and margins per unit of product for a selected group of milk distributors, 1952-58

(1952 = 100)

Item	1952	1953	1954	1955	1956	1957	1958 1/
Sales	100	98	94	97	99	98	99
Cost of raw materials:							
Raw milk and cream	100	93	87	88	91	88	89
Other	100	105	100	109	102	101	106
Total cost of raw materials	100	94	89	90	92	90	91
Gross margin	100	104	103	107	109	111	112
Operating expenses:							
Salaries, wages, and commissions	100	102	103	106	113	116	121
Containers	100	103	108	117	120	118	117
Operating supplies	100	107	117	107	93	97	97
Rent, repairs, and depreciation	100	104	114	120	128	134	135
Other expenses	100	102	107	111	113	111	115
Total operating expenses	100	103	106	110	114	117	120
Net margin before income taxes	100	113	77	77	69	71	64

1/ Preliminary.

Facility costs (rent, repairs, and depreciation) in 1958 were 35 percent higher per unit than in 1952. Costs of operating supplies declined 3 percent and other expenses increased 15 percent.

In 1958 net profits per unit of product, the remainder for payment of income taxes and return on invested capital, was 36 percent below the 1952 level. In 1953, when the gross margin increased more than operating costs, net margin increased sharply. A decrease in the cost of raw materials during this period more than offset the slight decrease in sales value and an increase in operating costs. In 4 of the 5 years since 1953, the gross margin increased less than operating costs and net profit decreased.

In summary, unit sales value changed little during 1952-58 and the increase in unit operating costs was offset by decreases in unit cost of raw milk and cream and in net profits per unit (fig. 3).

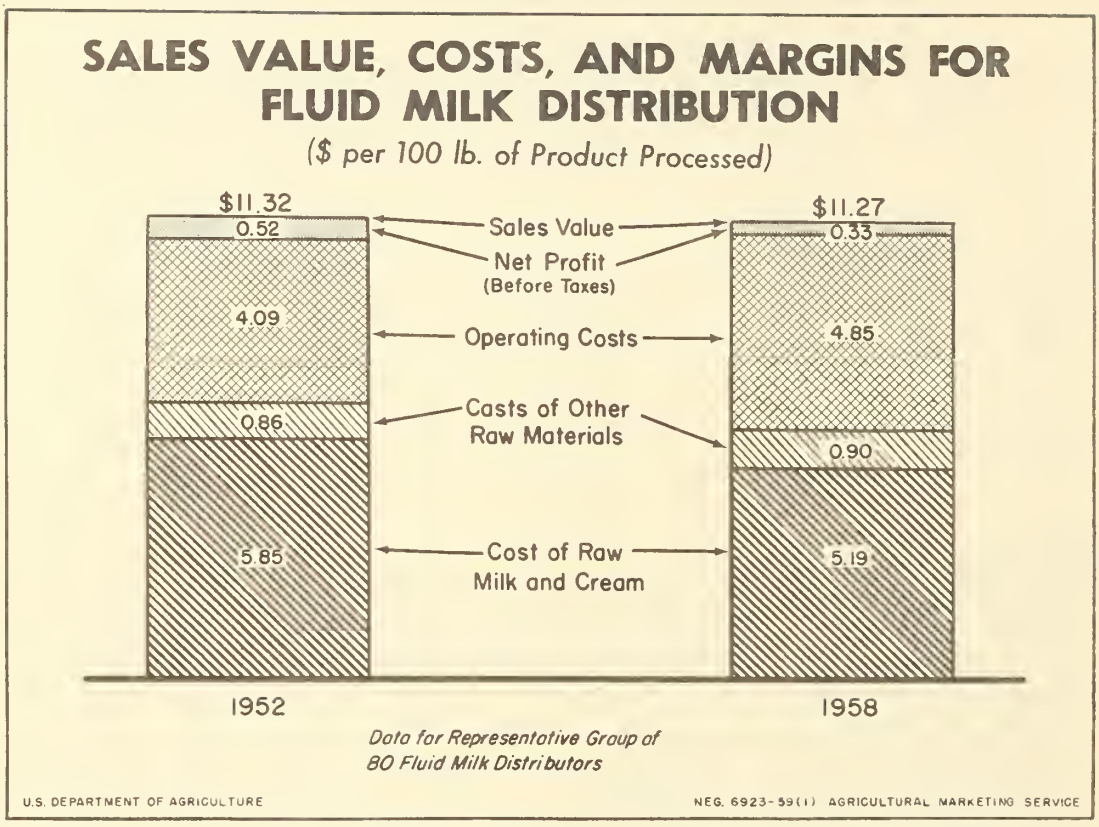

Figure 3

Sales Volume Per Plant Increased One-Third

The average sales of fluid milk distributing plants grew by more than one-third from 1952 to 1957. A study of a representative group of plants in business during this entire period showed increases of 36 percent in volume and 33 percent in value of sales (table 10). During this same period, the total nonfarm consumption of fluid milk in this country increased by 17 percent, accounting for about one-half of the growth in average sales of fluid milk distributing plants; the other half resulted from some plants going out of business.

Rate of growth has not been uniform among different sized plants. Value of sales of medium-sized plants (those with annual volumes of 12.0-23.9 million pounds of milk) increased at an annual rate of 8.4 percent as compared to 4.1 percent for larger plants and 7.0 percent for smaller plants.

During the period when value of sales increased 33 percent, net profits (before income taxes) decreased by 6 percent (table 10).

Table 10.- Average sales and profits per fluid milk plant and trend in fluid milk consumption, 1952-57

(1952 = 100)

Year	Sales		Net profits (before income taxes)	Consumption of fluid milk in the United States 1/
	Volume of product	Value		
1952	100	100	100	100
1953	109	105	119	102
1954	114	106	82	105
1955	122	115	89	110
1956	131	125	86	114
1957	136	133	94	117
	Percent	Percent	Percent	Percent
Average annual rate of change	6.3 increase	5.9 increase	1.2 decrease	3.2 increase

1/ Does not include milk consumed on farms where produced.

Seasonal Variations Wide in Fluid Milk Business

The volume of product sold by fluid milk distributors has increased fairly steadily from year to year but continues to vary widely by seasons. Value of sales, payments for raw milk and cream, and profits also vary seasonally (table 11). Of these four items, profits vary most. The peak season for volume of product is in the spring, value of sales is largest in the fall, and profits are highest during the winter. Volume of product, value of sales, payments for raw milk and cream, and profits are all at the year's lowest during the summer months.

Table 11.- Index of seasonal variations in volume of product, value of sales, payment for raw milk and cream, and profits for fluid milk distributors

Period	Volume of product	Value of sales	Payment for raw milk and cream	Net profits (before income taxes)
1st quarter	100.2	100.7	102.4	122.5
2nd quarter	102.0	98.1	96.4	105.5
3rd quarter	97.9	96.8	95.6	85.6
4th quarter	99.8	104.4	104.4	86.4

Butter

The marketing margin for butter was 23.1 cents in 1958, up 0.5 cent from the previous year; the retail price, at 74.2 cents, was down 0.1 cent, and the farm value at 51.1 cents was down 0.6 cent (table 12). During the period from 1950 to 1958, the marketing margin moved within a range of about 3 cents. It showed less tendency to increase than the margins for most other farm food products. There has been no pronounced trend in marketing margins for butter during the last 40 years; the margin has tended to be greater in amount but less proportionally during years of relatively high retail prices.

The increase in the marketing margin for butter during the 1950-58 period was in the wholesale-retail component (table 12). This segment of the marketing margin increased about 5 cents between 1950 and 1958. During the same period the farm-wholesale component decreased 1.9 cents.

Extensive changes have taken place in the marketing of butter over the years. To gain greater understanding of the marketing process the Agricultural Marketing Service studied 10 shipments of butter in 1957-58. Descriptions of these shipments, with data as to charges and operating margins of the marketing agencies involved (including transportation) are contained in the U. S. Department of Agriculture Miscellaneous Research Report 289, "Marketing Margins for Butter," issued in November 1958.

Eight of these shipments or parts of shipments were distributed in pound or 1/2-pound packages through retail stores, with total farm-retail margins ranging from 13.8 to 22.2 cents a pound. A part of one shipment was sold to consumers on home delivery routes of milk distributors. The marketing margin in this case was 21.1 cents. Parts of two shipments were sold in bulk for use in bakery products, with marketing margins of 9.2 and 13.6 cents. Parts of two other shipments were printed in patties of various sizes for use by restaurants. The total marketing margins in these cases were 13.1 and 21.8 cents.

These shipments of butter by no means exhausted the variations in the marketing process. Information concerning these shipments illustrates the variety of the services the several marketing agencies perform and the wide range in margins. They also help to indicate the diversity of the problems involved and something of the uniqueness of each marketing process.

Cheese

Processed Cheese

Both the wholesale price and the farm value of American processed cheese in 1958 reflected the decrease in Government support prices. The farm value at 28.1 cents per pound was down 0.7 cent from the 1957 level; the wholesale price at 36.0 cents was down 0.5 cent (table 12). However, the wholesale-retail price spread increased by 0.9 cent and the retail price increased 0.4 cent to 58.0 cents. The farmer's share of the dollar consumers spent for cheese dropped 2 cents to 48 cents.

Table 12.- Retail and wholesale prices of principal manufactured dairy products, farm values, and marketing spreads, 1950-58

Year and quarter	United States average retail price per pound	Processed loaf, wholesale price per pound, Chicago	Farm value of equivalent quantity of milk	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
	American processed cheese						
	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1950	51.1	35.6	27.4	23.7	15.5	8.2	54
1951	58.3	42.8	33.7	24.6	15.5	9.1	58
1952	59.9	44.0	35.2	24.7	15.9	8.8	59
1953	59.6	40.7	30.8	28.8	18.9	9.9	52
1954	57.2	36.5	27.7	29.5	20.7	8.8	48
1955	57.1	36.4	27.7	29.4	20.7	8.7	49
1956	57.2	36.3	28.4	28.8	20.9	7.9	50
1957	57.6	36.5	28.8	28.8	21.1	7.7	50
1958 1/	58.0	36.0	28.1	29.9	22.0	7.9	48
1957							
Jan.-Mar.	57.4	36.5	29.2	28.2	20.9	7.3	51
Apr.-June	57.5	36.5	28.5	29.0	21.0	8.0	50
July-Sept.	57.8	36.5	28.4	29.4	21.3	8.1	49
Oct.-Dec.	57.9	36.5	29.0	28.9	21.4	7.5	50
1958							
Jan.-Mar.	58.2	36.5	29.0	29.2	21.7	7.5	50
Apr.-June	58.1	35.4	27.4	30.7	22.7	8.0	47
July-Sept.	57.8	35.6	27.7	30.1	22.2	7.9	48
Oct.-Dec. 1/	57.9	36.5	28.4	29.5	21.4	8.1	49
	Creamery butter						
	United States average retail price per pound	Wholesale price per pound, 92 score, Chicago	Farm value of equivalent quantity of milk and cream	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
1950	72.3	61.7	52.2	20.1	10.6	9.5	72
1951	81.4	69.2	60.0	21.4	12.2	9.2	74
1952	85.0	72.2	62.6	22.4	12.8	9.6	74
1953	79.0	65.9	56.7	22.3	13.1	9.2	72
1954	72.4	59.7	50.4	22.0	12.7	9.3	70
1955	70.9	57.4	49.2	21.7	13.5	8.2	69
1956	72.1	59.2	51.0	21.1	12.9	8.2	71
1957	74.3	59.6	51.7	22.6	14.7	7.9	70
1958 1/	74.2	58.7	51.1	23.1	15.5	7.6	69
1957							
Jan.-Mar.	74.2	59.4	52.0	22.2	14.8	7.4	70
Apr.-June	73.9	59.4	51.5	22.4	14.5	7.9	70
July-Sept.	74.0	60.0	51.4	22.6	14.0	8.6	69
Oct.-Dec.	75.1	59.6	51.8	23.3	15.5	7.8	69
1958							
Jan.-Mar.	74.9	59.4	51.7	23.2	15.5	7.7	69
Apr.-June	73.7	57.7	50.4	23.3	16.0	7.3	68
July-Sept.	73.9	58.7	50.8	23.1	15.2	7.9	69
Oct.-Dec. 1/	74.5	58.9	51.5	23.0	15.6	7.4	69
	Evaporated milk						
	United States average retail price per 14-1/2 ounce can	Wholesale price per 14-1/2 ounce can 2/	Farm value of equivalent quantity of milk	Farm-retail price spread	Wholesale-retail price spread	Farm-wholesale price spread	Farm value as a percentage of retail price
1950	12.6	10.9	6.0	6.6	1.7	4.9	48
1951	14.4	12.7	7.4	7.0	1.7	5.3	51
1952	14.9	13.2	7.9	7.0	1.7	5.3	53
1953	14.6	12.3	6.6	8.0	2.3	5.7	45
1954	13.9	11.6	6.0	7.9	2.3	5.6	43
1955	13.7	11.6	6.0	7.7	2.1	5.6	44
1956	14.0	12.1	6.2	7.8	1.9	5.9	44
1957	14.6	12.6	6.3	8.3	2.0	6.3	43
1958 1/	15.1	12.8	6.2	8.9	2.3	6.6	41
1957							
Jan.-Mar.	14.3	12.4	6.5	7.8	1.9	5.9	45
Apr.-June	14.5	12.6	6.2	8.3	1.9	6.4	43
July-Sept.	14.7	12.6	6.1	8.6	2.1	6.5	41
Oct.-Dec.	14.7	12.7	6.3	8.4	2.0	6.4	43
1958							
Jan.-Mar.	15.0	12.8	6.4	8.6	2.2	6.4	43
Apr.-June	15.1	12.7	6.0	9.1	2.4	6.7	40
July-Sept.	15.1	12.8	6.1	9.0	2.3	6.7	40
Oct.-Dec. 1/	15.1	12.8	6.2	8.9	2.3	6.6	41

1/ Preliminary.
2/ United States average manufacturers' selling price per case converted to price per 14-1/2 oz. can.

Prices and margins for American processed cheese remained steady during 1954-58. An increase of 1.3 cents in wholesale-retail spread was about offset by a decrease of 0.9 cent in farm-wholesale spread. The retail price increased 0.8 cent, farm value 0.4 cent, and the total marketing margin 0.4 cent.

Natural Cheese

Retail prices and marketing margins -- particularly wholesale-retail margins -- for natural American cheese vary widely from lot to lot. Case studies made jointly by the Agricultural Marketing Service and the Tennessee Agricultural Experiment Station in 1956 of the marketing of Cheddar cheese produced and distributed in Southeastern United States showed that wholesale prices and farm values were fairly uniform from lot to lot but wholesale-retail spreads varied from as little as 1.0 cent per pound for cheese sold as a weekend special in a supermarket to as much as 30.0 cents per pound in small crossroads country stores. As a result, retail prices ranged from 39.0 cents to 69.0 cents per pound and the farmer's share of the retail price ranged from 56 percent to 31 percent (table 13).

Table 13.- Eight lots of Cheddar cheese produced and distributed in the Southeastern States, 1956: Prices, farm value, marketing spreads, and farmer's share of retail price for lots selling at highest and lowest retail price

Item	Lowest retail price	Highest retail price
	Cents	Cents
Retail price	39.0	69.0
Wholesale-retail spread	1.0	30.0
Wholesale price	38.0	39.0
Farm-wholesale spread	16.2	17.7
Farm value	21.8	21.3
Farm-retail spread	17.2	47.7
	Percent	Percent
Farmer's share of retail price	56	31

Evaporated Milk

The farm-retail price spread for evaporated milk averaged 8.9 cents per 14-1/2-ounce can in 1958 -- an increase of 0.6 cent from 1957 (table 12). The wider spread resulted from increases of 0.3 cent in both the farm-wholesale and the wholesale-retail spreads. Retail price rose 0.5 cent to 15.1 cents and farm value dropped 0.1 cent to 6.2 cents; the farmer's share of the retail price dropped to 41 percent, down 2 points.

During 1955-58, the farm-retail spread increased every year. Nearly all of this increase was in the wholesale-retail segment.